

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

(X) Original () Supplemental () Substitute () PCT

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "**A POLYMER/CLAY NANOCOMPOSITE COMPRISING A CLAY MIXTURE AND A PROCESS FOR MAKING SAME**", which is described and claimed in the specification

(check one) ☐ which is attached hereto, or
 ☒ which was filed on December 1, 1999, as United States Application No. 09/452,318 and with amendments through (if applicable), or
 ☐ in International Application No. PCT/, filed , and as amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known by me to be material to the patentability of the claims of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code §119 (a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATIONS: (ENTER BELOW IF APPLICABLE)			PRIORITY CLAIMED (MARK APPROPRIATE BOX BELOW)	
APP. NUMBER	COUNTRY	DAY/MONTH/YEAR FILED	YES	NO

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

APPLICATION NUMBER	FILING DATE
60/111,074	December 7, 1998

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information known by me to be material to the patentability of the claims of this application as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NO.	FILING DATE	STATUS (MARK APPROPRIATE COLUMN BELOW)		
		PATENTED	PENDING	ABANDONED

I hereby appoint the following attorneys and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Rose M. Allen	Reg. No. 35,424	Karen A. Harding	Reg. No. 33,967
Michael J. Blake	Reg. No. 37,096	Matthew W. Smith	Reg. No. 35,366
Betty J. Boshears	Reg. No. 33,864	Cheryl J. Tubach	Reg. No. 38,346
Harry J. Gwinnell	Reg. No. 29,000	Jonathan D. Wood	Reg. No. 39,076
William H. Needle	Reg. No. 26,209	Charles H. Fails	Reg. No. 37,616
Sumner C. Rosenberg	Reg. No. 28,753	Jacqueline M. Hutter	Reg. No. 44,792
David G. Perryman	Reg. No. 33,428	Matthew D. Josephic	Reg. No. 43,699
Mitchell A. Katz	Reg. No. 33,919	David S. Kerven	Reg. No. 43,712
Gregory J. Kirsch	Reg. No. 35,572	Lori L. Kerber	Reg. No. 41,113
Gwendolyn D. Spratt	Reg. No. 36,016	Janice A. Kimpel	Reg. No. 42,734
Nagendra Setty	Reg. No. 38,300	Lawrence D. Maxwell	Reg. No. 35,276
D. Andrew Floam	Reg. No. 34,597	Tina W. McKeon	Reg. No. 43,791
William R. Johnson	Reg. No. 32,875	Mary L. Miller	Reg. No. 39,303
Allan G. Altera	Reg. No. 40,274	Mark A. Murphy	Reg. No. 42,915
John L. Capone	Reg. No. 41,656	Lance D. Reich	Reg. No. 42,097
Shari Corin	Reg. No. P-46,243	Lisa A. Samuels	Reg. No. 43,080
Kean J. DeCarlo	Reg. No. 39,954	Lawrence A. Villanueva	Reg. No. 43,968
LaVonda R. DeWitt	Reg. No. 40,396	Mitchell G. Weatherly	Reg. No. 40,864
		Tim T. Xia	Reg. No. 45,242

Address all telephone calls to Mitchell A. Katz at telephone no. (404) 688-0770.

Address all correspondence to:

Mitchell A. Katz, Esq.
NEEDLE & ROSENBERG, P.C.
Suite 1200, The Candler Building
127 Peachtree Street, N.E.
Atlanta, Georgia 30303-1811

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of inventor: Robert Boyd Barbee

Inventor's signature: Robert Boyd Barbee Date: 1 June 2000

Residence: 500 Rambling Road, Kingsport, Tennessee 37663-2131

Post Office Address: same as above

Citizenship: USA

Full name of inventor: John Walker Gilmer

Inventor's signature: John Walker Gilmer Date: 24 May 2000

Residence: 2624 Wildwood Drive, Kingsport, Tennessee 37660-4754

Post Office Address: same as above

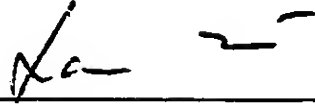
Citizenship: USA

Full name of inventor: James Christopher Matayabas, Jr.

Inventor's signature: James Christopher Matayabas Jr. Date: 5/23/2000
Residence: 1380 W. Saragosa Place, Chandler, Arizona 85224-7216
Post Office Address: same as above
Citizenship: USA

Full name of inventor: Tie Lan

Inventor's signature: _____



Date: May 25, 2007

Residence: 760 Waterford Court, Lake Zurich, Illinois 60047

Post Office Address: same as above

Citizenship: People's Republic of China

Full name of inventor: Vasiliki Psihogios

Inventor's signature: Vasiliki Psihogios Date: May 25, 2000

Residence: 321 N. Smith Street, Apt. 1, Palatine, Illinois 60067

Post Office Address: same as above

Citizenship: USA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assignee: **University of South Carolina
Research Foundation**

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REVOCATION AND APPOINTMENT OF POWER OF ATTORNEY

Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

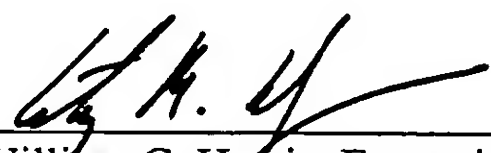
The Assignee hereby revokes all previous powers of attorney and/or authorizations of agent given in the patent applications identified on the attached **Schedule A**, and hereby appoints Troutman Sanders LLP, having a Customer Number of 006980, and the attorneys and agents that are associated with this Customer Number from time to time, to prosecute these patent applications and transact all business in the Patent and Trademark Office connected with the pending applications. Please address all future correspondence regarding the patent applications identified in the attached **Schedule A** to:

Todd Deveau
Troutman Sanders LLP
600 Peachtree Street, N.E.,
Suite 5200, Atlanta, Georgia 30308-2216
(phone: 404-885-3000)

I am the authorized agent of the Assignee-of-record in the patent matters of **Schedule A**.

Respectfully submitted,

10/01/02
Date:

By: 
~~William C. Harris, Executive Director~~
UNIVERSITY OF SOUTH CAROLINA
RESEARCH FOUNDATION
Anthony M. Boccanfuso, Ph.D.
Managing Director

SCHEDULE A

Serial No.	Filing Date	Title	Docket No.
09/338,222	6/22/1999	Nanocomposites for High Barrier Applications	USC3.CIP
10/092,128	3/ 6/2002	Process for Preparing High Barrier Nanocomposites	USC3.CIP.CON2
09/354,205	7/15/1999	Process for Preparing an Exfoliated, High I.V. Polymer Nanocomposite with an Oligomer Resin Precursor and an Article Produced Therefrom	USC7
10/145,833	5/14/2002	Process for Preparing an Exfoliated, High I.V. Polymer Nanocomposite With an Oligomer Resin Precursor and an Article Produced Therefrom	USC7.CON
10/198,916	7/19/2002	Process for Preparing an Exfoliated, High I.V. Polymer Nanocomposite with an Oligomer Resin Precursor and an Article Produced Therefrom	USC7.CON2
09/451,549	12/ 1/1999	A Polymer/Clay Nanocomposite Having Improved Gas Barrier Comprising a Clay Material With a Mixture of Two or More Organic Cations and a Process for Preparing Same	USC8
10/072,759	2/ 8/2002	Polymer/Clay Nanocomposite Comprising a Functionalized Polymer or Oligomer and a Process for Preparing Same	USC9.CON
09/452,317	12/ 1/1999	A Colorant Composition, a Polymer Nanocomposite Comprising the Colorant Composition and Articles Produced Therefrom	USC11
09/452,826	12/ 1/1999	A High Barrier Amorphous Polyamide-Clay Nanocomposite and a Process for Preparing Same	USC13
10/144,427	5/13/2002	Process for Preparing a High Barrier Amorphous Polyamide-Clay Nanocomposite	USC13.CON
09/593,905	6/14/2000	A Polymer Nanocomposite Comprising a Layered Clay Material Modified with an Alkoxylated Onium	USC14

SCHEDULE A (cont'd)

09/583,120	5/30/2000	A Polymer Nanocomposite Comprising a Maxtrix Polymer and a Layered Clay Material Having A Low Quartz Content	USC15
09/452,319	12/ 1/1999	A Polymer/Clay Nanocomposite Comprising a Clay Treated with a Mixture of Two or More Onium Salts and a Process for Making Same	USC10
09/870,929	5/30/2001	A Polymer Nanocomposite Comprising a Matrix Polymer and a Layered Clay Material Having a Decreased Level of Extractable Material	USC17
09/728,954	12/ 1/2000	A Polymer-Clay Nanocomposite Comprising an Amorphous Polymer or Oligomer	USC16
60/111,202	12/ 7/1998	Preparation of Highly Exfoliated Polyamide Nanocomposites with Oligomer Precursor	USC7.PRV
09/452,318	12/ 1/1999	A Polymer/Clay Nanocomposite Comprising a Clay Mixture and a Process for Making Same	USC12

ASSIGNMENT

WHEREAS, EASTMAN CHEMICAL COMPANY, a Delaware corporation having an office at 100 North Eastman Road, Kingsport, Tennessee 37660, United States of America, is the owner of the entire right, title and interest in United States Patent Applications listed on Schedule A (attached) and the respective inventions disclosed therein;

AND WHEREAS UNIVERSITY OF SOUTH CAROLINA RESEARCH FOUNDATION, a non-profit educational and research institution having a place of business at 901 Sumter Street, 514 Byrnes Building, Columbia, South Carolina 29208, United States of America, is desirous of acquiring the entire right, title and interest in and to said United States Patent Application(s) and respective inventions disclosed therein.

NOW, THEREFORE, for and in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, said EASTMAN CHEMICAL COMPANY has sold, assigned and transferred, and does hereby sell, assign and transfer to said UNIVERSITY OF SOUTH CAROLINA RESEARCH FOUNDATION, said United States Patent Application(s) and the inventions of the foregoing, the same to be held and enjoyed by UNIVERSITY OF SOUTH CAROLINA RESEARCH FOUNDATION for its own use and enjoyment and the use and enjoyment of its successors, assigns or other legal representatives, to the end of the term or term for which said patents are granted or reissued or extended as fully and entirely as the same would have been held and enjoyed by EASTMAN CHEMICAL COMPANY if this assignment and sale had not been made, as assignee of the entire right, title and interest therein and in and to all income, royalties, damages and payments now or hereafter due or payable with respect thereto in and to all causes of action (either in law or in equity) and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment.

EASTMAN CHEMICAL COMPANY covenants that it has full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreements inconsistent herewith.

IN TESTIMONY WHEREOF, EASTMAN CHEMICAL COMPANY has caused this Assignment to be executed by its duly authorized officers this 20th day of June, 2002.

EASTMAN CHEMICAL COMPANY

Bernard J. Graves, Jr.

Bernard J. Graves, Jr., Assistant Secretary
and Assistant General Counsel

ATTESTATION OF WITNESS

I, J. Wylrene Geska, whose full post office address is
443 Andover Court, Kingsport, TN 37663, U.S.A.
was personally present and did see Bernard J. Graves, Jr., who is personally known to me,
execute the above assignment.

J. Wylrene Geska

Signature of Witness

SCHEDULE A

United States Patent Applications

Application No.	Filing Date	Title
09/338,222	22 June 1999	NANOCOMPOSITES FOR HIGH BARRIER APPLICATIONS
09/354,205	15 July 1999	PROCESS FOR PREPARING AN EXFOLIATED, HIGH I.V. POLYMER NANOCOMPOSITES WITH AN OLIGOMER RESIN PRECURSOR AND AN ARTICLE PRODUCED THEREFROM
09/451,549	01 December 1999	A POLYMER/CLAY NANOCOMPOSITE HAVING IMPROVED GAS BARRIER COMPRISING A CLAY MATERIAL WITH A MIXTURE OF TWO OR MORE ORGANIC CATIONS AND A PROCESS FOR PREPARING SAME
09/452,319	01 December 1999	A POLYMER/CLAY NANOCOMPOSITE COMPRISING A CLAY TREATED WITH A MIXTURE OF TWO OR MORE ONIUM SALTS AND A PROCESS FOR MAKING SAME
09/452,317	01 December 1999	A COLORANT COMPOSITION, A POLYMER NANOCOMPOSITE COMPRISING THE COLORANT COMPOSITION AND ARTICLES PRODUCED THEREFROM
09/452,318	01 December 1999	A POLYMER/CLAY NANOCOMPOSITE COMPRISING A CLAY MIXTURE AND A PROCESS FOR MAKING SAME
09/452,826	01 December 1999	A HIGH BARRIER AMORPHOUS POLYAMIDE-CLAY NANOCOMPOSITE AND A PROCESS FOR PREPARING SAME
09/593,905	14 June 2000	A POLYMER NANOCOMPOSITE COMPRISING A LAYERED CLAY MATERIAL MODIFIED WITH AN ALKOXYLATED ONIUM COMPOUND
09/583,120	30 May 2000	A POLYMER NANOCOMPOSITE COMPRISING A MATRIX POLYMER AND A LAYERED CLAY MATERIAL HAVING A LOW QUARTZ CONTENT
09/728,954	01 December 2000	A POLYMER-CLAY NANOCOMPOSITE COMPRISING AN AMORPHOUS POLYMER OR OLIGOMER

09/870,929	30 May 2001	A POLYMER NANOCOMPOSITE COMPRISING A MATRIX POLYMER AND A LAYERED CLAY MATERIAL HAVING A DECREASED LEVEL OF EXTRACTABLE MATERIAL
60/225,499	15 August 2000	NOVEL PROCESSES FOR REDUCING HAZE IN ARTICLES MADE FROM A POLYMER NANOCOMPOSITE COMPRISING A MATRIX POLYMER AND A LAYERED CLAY MATERIAL
10/052,722	18 January 2002	PROCESS FOR PREPARING HIGH BARRIER NANOCOMPOSITES
10/072,759	08 February 2002	OLIGOMER COMPRISING AN AMMONIUM GROUP
10/092,128	06 March 2002	PROCESS FOR PREPARING HIGH BARRIER NANOCOMPOSITES
10/145,833	14 May 2002	PROCESS FOR PREPARING AN EXFOLIATED, HIGH I.V. POLYMER NANOCOMPOSITE WITH AN OLIGOMER RESIN PRECURSOR AND AN ARTICLE PRODUCED THEREFROM

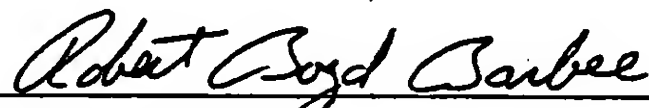
ASSIGNMENT

For good and valuable consideration received, we, **Robert Boyd Barbee**, a citizen of the United States of America, residing at 500 Rambling Road, Kingsport, Tennessee 37663-2131, U.S.A., **James Christopher Matayabas, Jr.**, a citizen of the United States of America, residing at 1380 W. Saragosa Place, Chandler, Arizona 85224-7216, U.S.A., **John Walker Gilmer**, a citizen of the United States of America, residing at 2624 Wildwood Drive, Kingsport, Tennessee 37660-4754, U.S.A., **Tie Lan**, a citizen of the People's Republic of China, residing at 760 Waterford Court, Lake Zurich, Illinois 60047, U.S.A; and **Vasiliki Psihogios**, a citizen of the United States of America, residing at 321 N. Smith Street, Apt. 1, Palatine, Illinois 60067, U.S.A., do hereby sell and assign to **EASTMAN CHEMICAL COMPANY**, a Delaware corporation having a place of business at Kingsport, Tennessee, its successors and assigns, the entire right, title, interest and prior rights in and to all of our inventions, discoveries and improvements disclosed in an application for Letters Patent for a "**A POLYMER/CLAY NANOCOMPOSITE COMPRISING A CLAY MIXTURE AND A PROCESS FOR MAKING SAME**," Application Serial No. 09/452,318, filed on December 1, 1999; and all right, title and interest in and to Letters Patent and similar protective rights granted on said application in the United States and other countries, as well as the right to claim any applicable priority rights arising from said application under the terms of any applicable conventions, treaties, statutes or regulations, said application filed and to be issued in the name of **EASTMAN CHEMICAL COMPANY** or its designee; and we agree to execute such documents as in the judgment of **EASTMAN CHEMICAL COMPANY** may be necessary to obtain any such patent and similar protective rights and vest and maintain the title thereto in **EASTMAN CHEMICAL COMPANY** or its designee; and we further agree that upon request, but without expense to us, we shall furnish the **EASTMAN CHEMICAL COMPANY** or its designee any data, information, exhibits, memoranda, or other evidence in our possession relating to any said inventions, discoveries, improvements, and to testify in any ex parte or inter partes legal proceedings relating to any of said inventions, discoveries, improvements, applications, patents or similar protective rights; and we authorize and request issuance of all Letters Patent and similar protective rights

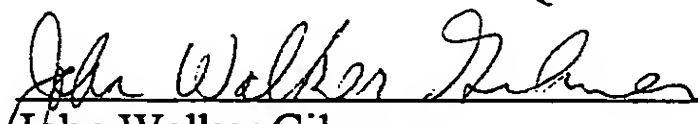
ATTORNEY DOCKET NO.: 05015.0263 (70964 US02)
PATENT

that may be granted on any of said applications, to the extent that and in such manner as such issuance shall be requested by EASTMAN CHEMICAL COMPANY or its designee. This document shall be governed, construed, and interpreted in all respects in accordance with the laws of the State of Tennessee, U.S.A.

I, Robert Boyd Barbee, have executed this Assignment this 1 day of
June, 2000.

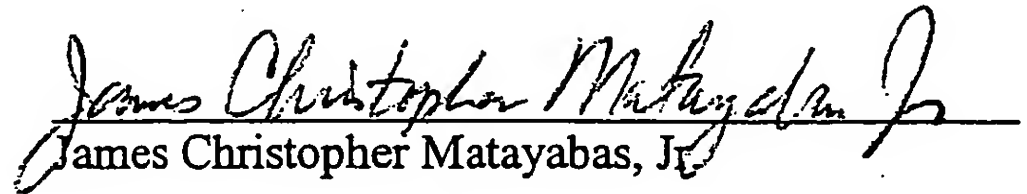

Robert Boyd Barbee

I, John Walker Gilmer, have executed this Assignment this 24th day of
May, 2000.


John Walker Gilmer

ATTORNEY DOCKET NO.: 05015.0263 (70964 US02)
PATENT

I, James Christopher Matayabas, Jr., have executed this Assignment this 23
day of May, 2000.


James Christopher Matayabas, Jr.

ATTORNEY DOCKET NO.: 05015.0263 (70964 US02)
PATENT

I, Tie Lan, have executed this Assignment this 25 day of May,
2000.

Tie Lan
Tie Lan

ATTORNEY DOCKET NO.: 05015.0263 (70964 US02)
PATENT

I, Vasiliki Psihogios, have executed this Assignment this 25 day of May
2000.

Vasiliki Psihogios
Vasiliki Psihogios

W029865